The Role of Mediation on Product Innovation and Market Orientation Related to both Entrepreneurial Orientation and Competitive Advantage

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The purpose of this study is to know and analyse the role of an entrepreneurial orientation towards competitive advantage of small and medium enterprise (UKM) through product innovation and market orientation. Entrepreneurial orientation is the character of entrepreneurship that is attached to an individual or an organisation. In this study, this character is either innovative, proactive or risk taker. The innovative character is the ability of the UKM to create products that are not only good quality but also provide more valuable products to its consumers. The proactive character is related to the UKM’s ability in responding to market phenomenon and adapting in the competitive atmosphere. The last, the risk taker, is related to the bravery and ability of the UKM in facing business risks as well as taking advantage of its opportunities. This study was conducted in UKMs that produce batik in the Malang Regency area. By utilising the quantitative explanatory research method and saturated sampling, the entire population of UKM batik producers in the Malang Regency area were used as the research sample. There are 66. The analytical tool is PLS. The research findings showed that an entrepreneurial orientation has a significant effect on competitive advantage. Product innovation and a market orientation also significantly affect competitive advantage. A market orientation partly mediates the effect of entrepreneurial orientation to competitive advantage.

Keywords: Entrepreneurial Orientation, Product Innovation, Market Orientation, Competitive Advantage, UKM Batik.
Introduction

One of the national economic driving factors in Indonesia is Small and Medium Enterprise (UKM). The increase of UKM in Indonesia is noted in the Central Bureau of Statistics (BPS) in 2016 and the Ministry of Cooperation and Small & Medium Enterprise annually. The more UKMs there are, the more job fields are opened, which increases the number of workers. This will influence the economy, which is also getting better, as is seen from the decreasing number of poor and jobless people in Indonesia. One of the impacts of UKM can be seen in the East Java Province, where there are 6,825,931 UKM units that absorb 11,117,439 workers. All of the UKMs are in 38 cities and regencies in the East Java area (the Cooperation and Micro, Small & Medium Enterprise Government Office, 2016). The Cooperation and Micro, Small & Medium Enterprise Government Office also stated that one of the biggest potential developments and empowerments for society is in the Malang area. One of the developed enterprises in this area is written batik crafts, well-known as “Batik Malangan”, with its own characteristics, like “Sawat Kembang, Teratai Singo, Dele Kecer, Kembang Juwet, Kembang Kopi, Kembang Manggar, Kembang Tanjung, Kembang Mayang”, and so forth.

Tight competition makes a business owner eager to win by applying the right strategies so that they are able to conduct and realise the goals which are being set. Every industry tries to have competitive advantage in order to win the competition in the business world. It becomes the most important factor in the continuity of an enterprise. Competitive advantage is the heart of an enterprise performance in a competitive market. However, after decades the existence of broaden and great prosperity causes many companies lost its views about the competitive advantage in the struggle of more developed in getting the diversification (Porter, 2004).

Entrepreneurial orientation is an important concept in developing and studying business strategy in small and medium enterprise (Storey, 1994). It is because the potential of this orientation is able to give a great drive for business people in formulating and executing business strategies, meaning they can gain competitive advantage and achieve a higher performance in comparison to their competitors (Supranoto, 2009; Putra, 2013; Helia, 2015; Zidni, 2016; Kumalaningrum, 2012). Business people who apply an entrepreneurial orientation by innovating, taking risks and being proactive, tend to make right decisions and strategies when facing the dynamics of the business environment (Suci, 2008). With an entrepreneurial orientation, a business will reach their target market easier and it will also be possible to place their business in a more advantageous position compared with competitors (Kumalaningrum, 2013).

From previous research, it is proven that an entrepreneurial orientation has a positive and significant effect towards the competitive advantage of an enterprise (Supranoto, 2009; Mahmood et al., 2003; Putra, 2013, Zidni, 2016). However, there is one study conducted by
Djobjobo and Tawas in 2014 that showed a different result, where the entrepreneurial orientation had an indirect effect toward competitive advantage. This difference was caused by the difference in applying the entrepreneurial orientation of a business with other businesses. There was also a business which had not had orientation applied or where it was applied partly. This is also because of business people that have less understanding of an entrepreneurial orientation, both in terms of definition and application, thus the expected changes did not appear.

Besides an entrepreneurial orientation, innovation can also become one of the strategies in reaching competitive advantage. The emphasis of product innovation is also one of the entrepreneurial actions that has an important role in increasing performance and competitive advantage (Supranoto, 2009; Setyanti, 2103; Djobjobo and Tawas, 2014; Helia et al., 2015). By increasing performance and competitive advantage, an entrepreneur will be able to run his business well (Zulfadil, 2010).

Narver and Slater (1990) stated that the concept of market orientation includes the reactive and proactive market orientation. The reactive market orientation is an effort in fulfilling the revealed customer’s needs. The proactive market orientation is an effort in fulfilling the unrevealed customer’s needs. It means that companies with a proactive market orientation will continuously try to find new opportunities in fulfilling a customer’s needs, thus it has the opportunity to continually create competitive advantage.

This research will be conducted in UKMs that produce batik in the Malang Regency area. This location was chosen because the potential of the batik UKM is quite big, as well as the competition in producing the high quality batik. This competition creates many opportunities and threats for UKMs in that area, so every business person will always have to be aware of the market situation, keep on trying to innovate and also determine the right business strategies to ensure their business keeps running. The economic changes, such as the increasing price of raw materials and the intensity of the competition, are some of the changes that must be considered (disperindag.jatimprov.go.id, 2016). Therefore, by conducting this research, researchers will study the effect of an entrepreneurial orientation toward competitive advantage, by using product innovation and market orientation as the mediation variable.

The purpose of the study includes: 1) analyse entrepreneurial orientation toward competitive advantage; 2) analyse the role of mediation on product innovation to the effect of an entrepreneurial orientation toward competitive advantage; 3) analyse the role of mediation on the market orientation to the effect of an entrepreneurial orientation toward competitive advantage.
Review of Related Literature

An Entrepreneurial Orientation

An entrepreneurial orientation depicts the organisational behavior that covers the bravery in taking risks, proactive character and being innovative (Slevin and Covin, 1991). The entrepreneurial orientation character is an attitude or characteristics that belong to a person who has a strong will in realising his innovative idea in the real world of business and can develop it (Drucker, 1994). Gima and Anthony (2001) argued that an organisation with a high ability in an entrepreneurial orientation tends to be able to perform well compared to the competitors in: (1) target market, (2) the speed in entering the market, and (3) the level of a product’s quality. Three main dimensions of an entrepreneurial orientation are innovative, proactive and risk taker characters (Miller, 1983).

Product Innovation

In simple terms, product innovation can be defined as a breakthrough related to new products. Kotler (2004) stated that an innovation is not only limited to the development of new products and services. The innovation includes the mind-set of the new business and process. Product innovation is innovation being used in all company operations, where new products are created and marketed, and it also involves all functional and usage processes (Crawford and De Benedetto, 2000). Product innovation according to Dewanto (2014) is the result of a new product development by a company or industry, both products already existing or not yet existing. Basically, product innovation happens in order to fulfill market demands. The more a company can fulfill consumers’ demand with qualified products, the easier for them to gain competitive advantage (Droge and Vickery, 1994). Without innovation, a company cannot last long or compete in the market. This is because the needs, desires and demands of the customers are always changing.

A Market Orientation

Market orientation is the business culture that the organisation operates in creating high quality values for consumers constantly (Narver and Slater, 1994). The philosophy of market orientation considers that a sale does not depend on aggressive sales but more on the consumer’s decision to buy a product (Lamb, 2001). According to Varadarajan and Jayachandran (1999), market orientation is a series of real actions that make it possible for a company to keep the variation of market demand and offer, and also give appropriate response to the occurring changes. Narver and Slater (1995) stated that the three main components in market orientation are customers, competitors’ orientations and inter-functional coordination. Market orientation is seen from the behaviour perspective which involves three important
actions, which are a generation of the market intelligence effort as a whole in an organisation continuously, the dissemination of the intelligence to all departments, and all of an organisations’ responsiveness to follow up the market intelligence result (Kohli et al., 1993).

**Competitive Advantage**

Competitive advantage is the result of implementing a strategy that utilises various sources that are owned by the company. Porter (1994) states that competitive advantage cannot be understood by seeing the company as a whole, but must be seen from the beginning of the competitive advantage, that is the various different activities that are done in the company in designing, producing, marketing and giving and supporting the products.

**The Conceptual Frame and Research Hypotheses**

**Picture 1. Research Conceptual Frame**

Based on the conceptual frame above, thus the hypotheses are:

- **H1**: an entrepreneurial orientation significantly affects competitive advantage
- **H2**: an entrepreneurial orientation significantly affects product innovation
- **H3**: an entrepreneurial orientation significantly affects market orientation
- **H4**: a product innovation mediates the effect between an entrepreneurial orientation and competitive advantage
- **H5**: a product innovation significantly affects competitive advantage
H6: a product innovation mediates the effect between an entrepreneurial orientation and competitive advantage

H7: a market orientation mediates the effect between an entrepreneurial orientation and competitive advantage

The Research Method

This research is quantitative with an explanation. The location is the Malang Regency area, for many objects are the batik UKMs, because batik is well known as batik Malangan. The total population is 66 UKMs (an industrial and commerce government office in Malang Regency) and all of these will be used as research samples. The total sampling technique is conducted, or the saturated sampling, and also by sampling procedure to take all populations.

The Research Findings

Based on the result, all research questions are valid, with the $r$ being more than 0.5 and the significance less than 0.005. All variables in this research are reliable, because the reliability coefficient is more than 0.6.

By using smart PLS 3, the result shows that outer model assessments (the convergent validity, composite reliability and discriminant validity) are valid, with the outer loading value being more than 0.7, and the cross loading value for each indicator than 0.7, AVE, so a value is more than 0.5. The composite reliability is reliable, with composite reliability and cronbach alpha values being more than 0.6.

The testing or any assessment of structural model by considering the R-square value for the dependent construct. The table below shown an R-square value in this research.

<table>
<thead>
<tr>
<th>Table 1: R-Square Value</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Orientation</td>
<td></td>
</tr>
<tr>
<td>Product Innovation</td>
<td>0.557</td>
</tr>
<tr>
<td>Market Orientation</td>
<td>0.738</td>
</tr>
<tr>
<td>Competitive Advantage</td>
<td>0.362</td>
</tr>
</tbody>
</table>
Based on the R-square value, the Q-square values can be calculated for the predictive relevance measuring that how well an observation value can resulted by the model and also the parameter estimation. Q-square in this research is:

\[ Q^2 = 1 - (1 - 0.557)(1 - 0.738)(1 - 0.62) \]
\[ = 0.926 \]

The resulting Q-square value is 0.888 and shows that the model of this research has already been good because the Q-square value is close to one (1).

**The Hypothesis Testing**

The hypothesis testing in the SEM-PLS by a re-sampling Bootstrap and used by statistical testing is the t-test with critical number of t-statistic to then get t-table (1.96) with the significance level 0.05, thus the hypothesis testing is accepted. On other hand, if the t-statistic is less than t-table (1.96), the hypothesis testing is rejected. The path coefficient value and the loading factor value for each variable and the relationship among the variables of this research can be seen in picture 2 and the following table.

**Picture 2. PLS Analysis Testing**
Table 2: The Result of Direct Effect and Indirect Effect Testing

<table>
<thead>
<tr>
<th>Direct Effect</th>
<th>Indirect Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variable</strong></td>
<td><strong>Dependent Variable</strong></td>
</tr>
<tr>
<td>Entrepreneurial Orientation (X1)</td>
<td>Competitive Advantage (Y)</td>
</tr>
<tr>
<td>Entrepreneurial Orientation (X1)</td>
<td>Product Innovation (X2)</td>
</tr>
<tr>
<td>Entrepreneurial Orientation (X1)</td>
<td>Market Orientation (X3)</td>
</tr>
<tr>
<td>Product Innovation (X2)</td>
<td>Competitive Advantage (Y)</td>
</tr>
<tr>
<td>Market Orientation (X3)</td>
<td>Competitive Advantage (Y)</td>
</tr>
</tbody>
</table>

**H1:** An entrepreneurial orientation significantly affects competitive advantage

Based on the table above, it can be seen that the entrepreneurial orientation significantly affects competitive advantage, with the t-statistic value 3.102 (>1.96) and p-value 0.003 (<0.05).

**H2:** An entrepreneurial orientation significantly affects product innovation

Based on the table above, it can be seen that the entrepreneurial orientation has a significant effects on product innovation, with the t-statistic value 5.684 (>1.96) and p-value 0.000 (<0.05).

**H3:** An entrepreneurial orientation significantly affects market orientation

Based on the table above, it can be seen that the entrepreneurial orientation significantly affects market orientation, with the t-statistic value 4.254 (>1.96) and p-value 0.000 (<0.05).
H4: A product innovation mediates the effect between an entrepreneurial orientation and competitive advantage

Based on the table above, it can be seen that product innovation has a significant effect on competitive advantage, with the t-statistic value 1.988 (>1.96) and p-value 0.050 (<0.05).

H5: A product innovation significantly affects competitive advantage

Based on the table above, it can be seen that product innovation has a significant effect on competitive advantage, with the t-statistic value 4.352 (>1.96) and p-value 0.000 (<0.05).

H6: A product innovation mediates the effect between an entrepreneurial orientation and competitive advantage

Based on the table above, it is known that the product innovation mediates the effect of an entrepreneurial orientation toward competitive advantage with the t-statistic value 2.092 (<1.96) and p-value 0.039 (<0.05).

H7: A market orientation mediates the effect between an entrepreneurial orientation and competitive advantage

Based on the table, it can be known that the market orientation mediates the entrepreneurial orientation toward competition advantage with the t-statistic value 3.094 (<1.96) and p-value 0.003 (<0.05).

Discussion

The Effect of Entrepreneurial Orientation on Competitive Advantage

The research findings prove that an entrepreneurial orientation significantly affects competitive advantage. It means an entrepreneurial orientation can increase competitive advantage. Research findings by Miller (1983) stated that an entrepreneurial orientation is an orientation in which it tries to be the first in the innovation of a market product, dares to take a risk and is proactive in defeating a competitor. The determination of a right strategy can increase the company’s competitiveness (Bharadwaj, 1993).

This research finding is also in agreement with the research of Sirivanh et al. (2014); Lee and Hsieh (2010); Supranoto (2009), Setyawati (2013); Putra (2013); Helia (2015) that proved that an entrepreneurial orientation has a significant effect on competitive advantage.
This finding is supported by a fact with empirically for entrepreneurial orientation action, thus the competitive advantage of batik UKM will also be increase. Furthermore, it can be explained and well-managed by an entrepreneurial orientation and will increase the competitive advantage of batik UKMs in the Malang Regency. Facts in the field also proved that an innovative character owned by the batik UKM owner, such as an idea, thinking, creativity, and being innovative can make the batik drawn to then be produced by a unique characteristic and also of value and culture of the Malang area.

**The Effect of an Entrepreneurial Orientation on Product Innovation**

The results of the hypothesis testing show that an entrepreneurial orientation affects product innovation. It means that an entrepreneurial orientation can increase innovation. This finding from Koh (1997) and Helia’s (2015) proves that an entrepreneurial orientation affects product innovation.

In accordance with Zahra and Covin (1995), it is stated that a company oriented to entrepreneurship by being proactive and daring to take risks will make this company have an ability to create innovative products than its competitor. By doing it quickly, it will also satisfy the customer quickly. This research finding is supported by the empirical fact more better entrepreneurial orientation action than innovation.

**The Effect of an Entrepreneurial Orientation on Market Orientation**

The results show that an entrepreneurial orientation significantly affects market orientation. It means that applied by an entrepreneurial orientation can make a market orientation will be good.

According to Milles and Arnold’s (1991), it is stated that a company which is oriented to entrepreneurship will have a tendency and focus on the customers’ needs, therefore it is market oriented. Moreover, Sheng and Cul (2007) explained that entrepreneurship and a market orientation were complementary. These research findings are also in agreement with Matsuno (2002), Setyawati (2013), Kumalaningrum (2013) and dan Nur (2014), who stated that an entrepreneurial orientation has a positive effect on a market orientation.

Many facts in the field showed that batik UKM owners in the Malang Regency have innovative and proactive characters. Innovative characters are by keep channelling for a creative idea that owned by the batik craftsman and also considering the market’s trends then demands. The entrepreneurs’ proactive character is shown by being active in attending seminars and exhibitions such a government. Besides that, batik UKM owners also consider to their customers as the business partners.
The Effect of Product Innovation on Competitive Advantage

The research findings show that product innovation positively affects competitive advantage. It means that an increase in innovation by UKMs can improve competitive advantage.

In accordance with Han’s et al. (1995), it is stated that emerging of the innovation is to fulfill with market’s demand. It is also with Bharadwaj’s et al. argument that explained with an ability of the company to innovate and created by product. So, it will keep a product to need and favor from many consumers. This is also in agreement with the research findings of Dewi (2006), Sismanto (2006), Supranoto (2009) Helia (2015), Samad dan Aziz (2016) and Lee (2010).

Based the findings, it is shown that many innovations by the craftsmen, among others are coloring by using natural dye and combining batik, then woven fabric. Besides that, the made motif is also various and suitable with the uniqueness in Malang area.

The Effect of a Market Orientation on Competitive Advantage

The research findings show that a market orientation significantly affects competitive advantage. It means that a market orientation can improve competitive advantage. This finding from Narver’s and Slater’s (1995) states that a market orientation is strongly effective to reach the competitive advantage. This was started by planning and coordinating with all departments within in the company in order to fulfill consumers’ needs and demands. A market orientation emphasises the importance of identification analysis of customer’s need by creating many new products.

The research findings from Zhou et al. (2009), Dewi (2006), Afsharghasemi (2013), Hapsari (2014) and Helia (2015) state that a market orientation affects competitive advantage. Facts in the field indicate that in running the batik enterprise, in order to satisfy consumers, the consumers’ needs, and demands are a top priority.

The Role of Product Innovation in Mediating the Effect of the Entrepreneurial Orientation towards the Competitive Advantage

The research findings prove that innovation has a role in mediating the effect between an entrepreneurial orientation towards competitive advantage. It means that an entrepreneurial orientation is able to improve innovation and improve a UKM’s competitive advantage. The mediation of innovation also affects an entrepreneurial orientation and competitive advantage with partial mediation.
These research findings show that an entrepreneurial orientation is able to increase a UKM’s innovation. Lumpkin’s et al. (2009) said that entrepreneurial orientations are a process and activity of decision making to be brave in trying new opportunities and innovative actions.

The result from Supranoto (2009) stated that an ability of innovation is a really important thing in entrepreneurship. This is also strengthened by Koh’s (1997) research, who states that an ability of innovation for an entrepreneur is more visible if he has a good entrepreneurial orientation.

**The Role of Market Orientation as a Mediation Effect between Entrepreneurial Orientation and Competitive Advantage**

The research findings prove that a market orientation mediates effect between entrepreneurial orientation and competitive advantage. It means that an entrepreneurial orientation that reflects innovative, proactive and risk taker characters will create a market orientation. It reflects on the customer’s orientation and the competitor’s orientation will be able to improve the competitive advantage of batik UKMs. A mediation of market orientation, there is effect between entrepreneurial orientation and competitive advantage is a partial mediation.

The findings from Joo Ma’s (2012) said that orientation has a positive significant relationship with competitive advantage by mediation for market orientation.

**Conclusion**

An entrepreneurial orientation has a significant effect on competitive advantage. An owner of a batik UKM who has an innovative, proactive and risk taker character is able to improve competitive advantage. An entrepreneurial orientation significantly affects product innovation. An owner of a batik UKM who has an entrepreneurial orientation will be able to create innovation in order to expand his enterprise. An owner of a batik UKM who applies the entrepreneurial orientation well will tend to always innovate.

An entrepreneurial orientation has a significant effect on market orientation, which belongs to many owners of the batik UKM has a tendency to improve a market orientation, for examples customers’ orientation and competitors’ orientation. Product innovation significantly affects competitive advantage. Many innovations, which is a product innovation or a technical innovation, will be able to improve a competitive advantage of the batik UKM.

A market orientation has a significant effect on competitive advantage. The batik UKM businessman who applies a market orientation, customers’, and the competitors’ orientation. It will be able to improve the competitive advantage of his batik UKM business. So, a product
innovation mediates effect between entrepreneurial orientation and competitive advantage by the partial mediation characteristic. The market orientation also mediates effect on entrepreneurial orientation and competitive advantage by the partial mediation characteristic.

**Suggestion**

A business of the batik UKM in Malang Regency should have been applying entrepreneurial orientation characteristics, such as innovative, proactive and risk taker, because it can improve competitive advantage. Besides that, product innovation and a market orientation must be applied well, and also in order to improve competitive advantage. With future research, other antecedents that will affect competitive advantage can be studied.
REFERENCES


